REMARKS

Withdrawal of previous grounds of rejection is gratefully acknowledged.

New claim 32 is added. Support for claim 32 is found in the present specification at page 8, lines 32-34, and page 19, Table 3 and lines 5-7. Applicants respectfully submit that the amendments to the claims do not raise an issue of new matter.

Rejection under 35 U.S.C. § 103(a)

Claims 1-14 and 30 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hayami, et al. (EP 141 228), Huang, et al. (Chinese Journal of Catalysis (November 1999) vol. 20 (6)) and Mamedov, et al. (US 6710011).

Applicants respectfully submit that there are no teachings in Hayami, et al. which when combined with Huang, et al. and Mamedov, et al. (US 6710011) would lead one of ordinary skill in the art to the presently claimed invention.

Hayami, et al describe a process for producing 2,6 polychlorobenzonitrile by ammoxidation of toluene derivative having chlorine atoms at the 2,6 position with a gas containing ammonia and oxygen in vapor phase in the presence of a catalyst wherein bromine and/or a bromine-containing compound is added to the reaction system. Hayami, et al. do not teach all the features of the claimed process. In particular, Hayami, et al. do not disclose nor suggest the use of water vapor in the process of ammoxidation.

Huang, et al. describe the ammoxidation of 2,6-dichlorotoluene on silica supported vanadium-phosphorus oxide catalyst. Huang et al. is also silent on the use of water vapor in the process of ammoxidation.

Mamedov, et al. do not correct the deficiencies of Hayami, et al. and Huang, et al. In a first aspect, Mamedov, et al. disclose the ammoxidation of alkane, olefins or xylenes and is completely silent on the ammoxidation of halogenated C_1 to C_6 alkyl benzene. Mamedov, et al. do not describe any specific example of any ammoxidation process in the presence of water. Applicants respectfully disagree with the Examiner's interpretation of Comparative Example 1 which the Office Action characterizes as teaching vapor phase ammoxidation in the presence of water (Office Action, page 4). In the comparative example on page 6, lines 44-57, water is only

used for the preparation of the catalyst which is further calcinated before being used in the ammoxidation process.

There is no teaching in Mamedov, et al. that would prompt, motivate or direct the skilled man in the art to explore modification of the process of the Hayami, et al. and/or Huang, et al. documents. Accordingly, the references taken as a whole, do not teach all of the elements of the claimed invention.

In addition, new claim 32 recites that "7 to 40 moles of water per mole of C_1 to C_6 alkyl benzene are provided". None of the cited references teach or suggest the limitations of new claim 32 taken with claim 1 from which it depends.

Furthermore, the claimed method provides advantages that are unexpected in view of the cited references. The Examiner is referred to the paragraph beginning at the bottom of page 8 which is reproduced in part.

> The presence of water vapour plays an important role in controlling the surface metal oxide structures. Moisture is able to interact with oxygen functionalities of the surface vanadium species via hydrogen-bonding. The presence of water vapour is expected to suppress the formation of total oxidation products by blocking the most active sites on vanadium oxide structures. Addition of water vapour also moderates the temperature variation in the reactor which provide thermal ballast. The presence of water vapour is also considered to help the easy desorption of products and also limit the adsorption of reactants due to competitive adsorption. In the presence of steam the coordination characteristics of active centres and the surface acid-base properties are believed to be modified. In general, the partial pressure of steam, is expected to affect i) the ratio of Bronsted to Lewis acid sites, ii) hydrolytic break of V-O-P and P-O-P bonds, iii) the degree of surface hydroxylation and so on. Also, mixing of steam with organic feed can significantly enhance the selectivity of desired product.

Furthermore, as disclosed in the present specification at page 8, lines 14-16, "the addition of steam in the feed gas in a fixed proportion has a beneficial effect on the catalytic performance of a $VPCrO/TiO_2$ catalyst (see also Tables 3 and 4)...". Accordingly, the presence of the water vapor as per the claimed method provides multiple advantages in the preparation of halogenated benzonitriles compared to processes as described in the cited prior art.

The superior results obtained with the described method of the claimed invention are further illustrated in the Examples. See particularly Tables 1-4. Table 3 shows the influence of

the presence of water vapour. Both % yield and % conversion are greatly improved as shown in Table 3.

In view of Applicants' arguments, reconsideration and withdrawal of the above ground of rejection is respectfully requested.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

In view of Applicants' amendments to the claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated: Jan. 16, 2009

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